

Claims

- [c1] 1. A method for transmitting an event message from a first application to at least one second application over an event channel, the method comprising:
generating a message request based on an event at a first application, the message request having a header and a body, the body containing typed event data marshaled for transmission over an event channel;
sending the message request to the event channel;
in response, reading the header to obtain information about the event without un-marshaling the body;
creating a wrapper based, at least in part, on the information obtained from the header;
appending the body to the wrapper to create an event message;
determining at least one second application to receive the event message; and
delivering the event message to said at least one second application.
- [c2] 2. The method of claim 1, further comprising:
un-marshaling the body of the event message at the second application for processing the typed event data.

- [c3] 3. The method of claim 1, wherein said message request comprises a General Inter-ORB Protocol (GIOP) Message Request.
- [c4] 4. The method of claim 3, wherein the header of said GIOP Message Request includes an operation name.
- [c5] 5. The method of claim 1, wherein said step of creating a wrapper includes reading the header to obtain an operation name.
- [c6] 6. The method of claim 5, wherein said step of creating a wrapper includes inserting said operation name into the wrapper.
- [c7] 7. The method of claim 1, wherein said step of creating a wrapper includes creating a wrapper for each said at least one second application registered with the event channel to receive the event message.
- [c8] 8. The method of claim 7, wherein said step of creating a wrapper includes inserting an address of each said at least one second application into the wrapper.
- [c9] 9. The method of claim 1, wherein said appending step includes appending the body to the wrapper without unmarshaling the body.

- [c10] 10. The method of claim 1, wherein said appending step includes appending the body to the wrapper without re-marshaling the body.
- [c11] 11. The method of claim 1, further comprising:
retaining a copy of the body;
un-marshaling at least a portion of the body for filtering purposes;
applying a filter to the un-marshaled portion of the body for determining at least one second application to receive an event message based on the message request;
and
appending the copy of the body to the wrapper to create an event message for delivery to said at least one second application.
- [c12] 12. The method of claim 1, further comprising:
storing a copy of the body of the message request.
- [c13] 13. The method of claim 1, wherein said determining step includes determining at least one second application registered with the event channel to receive the event message.
- [c14] 14. The method of claim 1, wherein said appending step further comprises:
adjusting the wrapper length if necessary for proper

alignment of the body.

- [c15] 15. The method of claim 1, wherein said appending step further comprises:
determining if the body appended to the wrapper is properly aligned; and
if the body is determined to be misaligned, adjusting the wrapper length to provide for proper alignment of the body.
- [c16] 16. A computer-readable medium having processor-executable instructions for performing the method of claim 1.
- [c17] 17. A downloadable set of processor-executable instructions for performing the method of claim 1.
- [c18] 18. A method for delivering a message based on an event at a supplier object to a consumer object through a communication channel, the method comprising:
receiving at a communication channel a request from a supplier object based on an event, the request including a request header and a payload, the payload comprising typed event data based on the event marshaled for delivery through the communication channel;
identifying a consumer object to receive a message based on the request;

generating a message header based, at least in part, on the request header;

creating a message for delivery to the consumer object by appending the payload to the message header, the message created without un-marshalling the payload; determining if the payload of the message is properly aligned; and

if the payload of the message is determined to be properly aligned, delivering the message to the consumer object.

- [c19] 19. The method of claim 18, wherein said request received from the supplier object comprises a General Inter-ORB Protocol (GIOP) message.
- [c20] 20. The method of claim 18, wherein said request received from the supplier object comprises a General Inter-ORB Protocol (GIOP) Message Request.
- [c21] 21. The method of claim 20, wherein the request header of said GIOP Message Request includes an operation name.
- [c22] 22. The method of claim 18, wherein said generating step includes extracting an operation name from the request header.
- [c23] 23. The method of claim 22, wherein said generating

step includes inserting said operation name into the message header.

[c24] 24. The method of claim 18, wherein said generating step includes inserting an address of the consumer object into the message header.

[c25] 25. The method of claim 18, further comprising: storing a copy of the payload to protect against loss of the payload.

[c26] 26. The method of claim 18, further comprising: if said determining step determines that the payload is misaligned, adjusting the message header length to properly align the payload.

[c27] 27. The method of claim 18, further comprising: if said determining step determines that the payload is misaligned, notifying the supplier object of an error condition.

[c28] 28. The method of claim 18, further comprising: providing an indicator enabling a user to specify whether to adjust the message header if necessary to properly align the payload; and if said determining step determines that the payload is misaligned, adjusting the message length if said indicator specifies that the message header is to be adjusted.

- [c29] 29. The method of claim 18, further comprising:
providing an indicator enabling a user to specify whether
to adjust the message header if necessary to properly
align the payload; and
if said determining step determines that the payload is
misaligned, blocking delivery of the message based upon
the indicator.
- [c30] 30. The method of claim 18, wherein said determining
step is based, at least in part, upon determining a Gen-
eral Inter-ORB Protocol (GIOP) version used by the con-
sumer object.
- [c31] 31. The method of claim 18, wherein said evaluating
substep is based, at least in part, upon determining a
General Inter-ORB Protocol (GIOP) version used by the
supplier object.
- [c32] 32. A computer-readable medium having processor-
executable instructions for performing the method of
claim 18.
- [c33] 33. A downloadable set of processor-executable instruc-
tions for performing the method of claim 18.
- [c34] 34. A system for sending an event message from a sup-
plier program to a consumer program, the system com-

prising:

a supplier object request broker for receiving notice of an event at a supplier program, creating a message request based on the event, and transmitting the message request to an event channel, the message request including a header and a body containing typed event data marshaled for transmission through the event channel; an event channel for receiving the message request, reading the header to obtain information about the event, creating a wrapper based on the information from the header, appending the body to the wrapper to create a message without un-marshalling the body, determining a consumer program to receive the message, and delivering the message to a consumer object request broker associated with the consumer program; and a consumer object request broker for receiving the message from the event channel, un-marshalling the body of the message to obtain the typed event data, and providing the typed event data to the consumer program.

[c35] 35. The system of claim 34, wherein said event channel operates at the object request broker level.

[c36] 36. The system of claim 34, wherein said request comprises a General Inter-ORB Protocol (GIOP) Message Request.

- [c37] 37. The system of claim 36, wherein the header of said GIOP Message Request includes an operation name.
- [c38] 38. The system of claim 37, wherein said event channel inserts the operation name from the request header into the wrapper.
- [c39] 39. The system of claim 34, wherein said event channel inserts an address of the consumer object request broker into the wrapper.
- [c40] 40. The system of claim 34, further comprising:
a database for storing a copy of the body received by the event channel.
- [c41] 41. The system of claim 34, wherein said event channel determines whether the body of the message is properly aligned before sending the message to the consumer object request broker.
- [c42] 42. The system of claim 41, wherein said event channel adjusts the wrapper length if said event channel determines the body of the message is misaligned.
- [c43] 43. The system of claim 41, wherein said event channel notifies the supplier object request broker of an error if the body of the message is misaligned.
- [c44] 44. The system of claim 34, wherein said event channel

receives a reply message from the consumer object request broker and returns the reply message to the supplier program through the supplier object request broker.

- [c45] 45. The system of claim 34, wherein said supplier object request broker sends the message request to the event channel in response to an event-pulling message sent by the consumer object request broker.